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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Hong Chen

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EXAMINER

MARCANTONI, PAUL D

ART UNIT

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1793

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/534,421	Applicant(s) CHEN ET AL.	
	Examiner Paul Marcantoni	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/8/10 RCE and Response.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35-39,41-45,50-55 and 60-74 is/are pending in the application.
- 4a) Of the above claim(s) 50 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35-39,41-45,51-55 and 60-74 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 35-39,41-45,50-55 and 60-74 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/9/10</u> . | 6) <input type="checkbox"/> Other: _____ |

Applicant's 3/8/10 RCE and Response have been fully considered but they are not persuasive.

New Matter:

Claims 35-39, 41-45, 51-55 and 60-74 are rejected under the first paragraph of 35 USC 112 and 35 USC 132 as the specification as originally filed does not provide support for the invention as is now claimed.

The term “crystalline” siliceous material added in claim 35 and throughout the pending claims is new matter. Applicants do not have support for any or all crystalline siliceous material but only specific crystalline siliceous materials including silica sand, quartzite dust, and activated silica, clay. The remaining would appear to be amorphous siliceous materials (see paragraph [0041] in PG PUB applicants' specification). Applicants thus only have literal support for those specific crystalline siliceous material but not every, any, or all crystalline siliceous materials they do not mention. There is no literal statement that any crystalline and/or amorphous siliceous material can be used to make calcium silicate hydrate. This is not a suggestion but only an observation.

The applicants newly underlined limitations in claim 35 (“any”) combination of calcerous material, crystalline siliceous material, “semi-dry powder form”, etc. would also appear to be new matter in claim 35 and throughout the claims.

Claim 36 is new matter due to “crystalline” as is claim 38 or any claim using the term crystalline.

Claims 51 and 60 are new matter for same reasons given for claim 35.

Again, all claims using crystalline (siliceous material) are new matter.

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Obviousness Type Double Patenting:

Claims 35-39, 41-45, 51-55 and 60-74 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-34 of U.S. Patent No. 6,506,248 B1 (Duselis et al.) and claims 1-33 and 65 and 71-78 of US Patent No. 6,346,146 B1 (Duselis et al.) Both references method claims teach applicants' claimed invention. Although the conflicting claims are not identical, they are not patentably distinct from each other because both teach a method for making calcium silicate hydrate by mixing a calcerous source and a siliceous source under the appropriate conditions and do not rule out not mixing (physically agitating) but just adding the components together.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

35 USC 103:

Claims 35-39,41-45,51-55 and 60-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huttemann et al. '971, Kalousek '657, Helser '955 or '397, Nakano et al. '573, Kubo '324, or Oguri et al. '257.

All of the above cited references teach making calcium silicate hydrate by mixing a calcerous material with a siliceous material in a quantity. The prior art does not teach a predetermined quantity so thus the rejection under 35 USC 103 was made over 35 USC 102. It was not understood what applicants meant by predetermined quantity. *Further, the crux of applicants invention appears to be that the formation reaction of calcium silicate hydrate between the calcerous source and the siliceous source takes place with little or no agitation (see claim 35).* More particularly, it seems "no agitation" as indicated in independent claims 51 and 60. The newly added term --essentially no agitation-- still reads upon mixing because the word "essentially" is present. If applicants had said *no* agitation, then there would be no mixing at all. This is not a suggestion, just an interpretation of present claim language for claim 35. Hutteman '971 teaches mixing a calcerous and siliceous source to make calcium silicate hydrate (see claims) and does not even mention that these components must be agitated in any way but only physically be added together or mixed with one another (not necessarily with a mixing device). Also note that, for example, mixing will occur even upon transport in a tube or pipe or even in a container just by the turbulent action of the two ingredients together.

Kalousek '657 teaches making a calcium silicate hydrate by mixing a calcerous and siliceous source in Example I and notes that the mixture can undergo "mild" (ie

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little) mixing or may be hand mixed by using a wooden paddle. Note again that Kalousek does not say it "must" be hand mixed gently or mildly but that it may be mixed in this manner. It would have been also obvious for one of ordinary skill in the art to simply not mix with a wooden paddle at all and just let the mixture form the gel without mixing (see Example I, col.3, lines 1-20).

Helser teaches making a calcium silicate hydrate by mixing a calcerous source and a siliceous source and he does not require any agitation of the two components prior to forming the gel thus meeting applicants' claim limitations (See claims for both Helser references).

Nakano et al. likewise teaches mixing the same components but not agitating to form the gel which becomes calcium silicate hydrate (see claims).

Kubo '324 also teaches making hydrous calcium silicate hydrate by mixing a calcerous and siliceous source and notes that "although the continuous stirring is desirable, the system may be stirred intermittently insofar as the production of the hardened mass is prevented. It would appear Kubo is saying that stirring is not required to form the end product thus meeting applicants limitation (negative) of little or no agitation (ie stirring).

Oguri et al. '257 teach a process for making calcium silicate hydrate by mixing a calcerous source and a siliceous source and in his claims he does not require agitation of the components but only that they be added together for a reaction (see claims).

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Response from 12/7/2009 Final Rejection:

Applicants indicated they wish to hold the ODP in abeyance pending the outcome of other issues such as other rejections. In rebuttal, applicants did not provide a proper terminal disclaimer (though they appear they may do so) so the ODP rejection remains.

The examiner has also reviewed the other arguments relating to these references yet it appears that the change in sequence of adding ingredients does not teach away from the prior art rendering applicants' invention prima facie obvious to one of ordinary skill in the art. All teach making calcium silicate hydrate. Further, all teach the same materials which applicants claim as a gel forming agent (which are amorphous silica sources) and little agitation has been interpreted to still mean agitation or some agitation (as opposed to no agitation). It is further noted that one of ordinary skill in the art would have understood the final product could be formed into a powder or a specific shape such as a brick or block depending upon the desired end use. It merely requires setting the powder into a set form.

Response to Applicants 3/8/10 RCE Arguments:

132 Declaration:

This declaration defines crystalline silica yet it does not overcome the new matter rejection. Applicants do not have support for any or all crystalline siliceous materials other than those within their original disclosure/specification.

Claim 50:

Claim 50 is not eligible for rejoinder because in order that rejoinder to occur the “product” claims must be elected first. Rejoinder according to the MPEP requires the product and if applicants elect process first as they have done in this application then rejoinder is not required by examiner. However, as was stated in the 3/14/08 restriction, the applicants can have all claims ultimately allowed together but that would require applicants stating for the record that claim 50 is an *obvious variant* of the presently pending and elected process claims. If they do not do that, the restriction remains.

New Matter:

The examiner disagrees with applicants analysis of new matter regarding crystalline siliceous. They are only entitled to those species that are crystalline siliceous material. There is no literal support for crystalline siliceous material. The only way the examiner sees that applicants can overcome is a CIP application adding a limitation to the specification for including crystalline siliceous material. The new matter rejection stands. Also while quartz may be “one” specific type of crystalline siliceous material, it is not the only one and applicants cannot broaden there disclosure to other than the specific crystalline siliceous material they have in their original disclosure. Since applicants hold that quartz is allegedly the same as crystalline siliceous material, then why didn’t they simply add quartz to claim 35? The examiner believes they did not because crystalline siliceous material is broader in scope than quartz alone.

The examiner has reviewed applicants remarks regarding prior art rejections but maintains they are proper for the reasons set forth in his rejection and earlier remarks. It is noted that any arguments to stirring or mixing or agitation or not overcome because

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“essentially no agitation” means stirring can happen. Applicants are not claiming no agitation and thus any reference teaching stirring still meets their claim limitation for “essentially no agitation”.

One of ordinary skill in the art would also have understood he or she would have the option of keeping the calcium silicate hydrate in solution or permit drying to the extent that it is in a semi-dry powder form. That is not a patentable distinction over the prior art.

This is an RCE of applicant's earlier Application No. 10/534,421. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Marcantoni whose telephone number is 571-272-1373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Paul Marcantoni/
Primary Examiner, Art Unit 1793